



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/697,983	10/31/2003	Hiroshi Tanioka	03500.013997.1	8959	
5514	7590 02/28/2006		EXAMINER		
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA			BOTTS, MICHAEL K		
	I, NY 10112		ART UNIT	PAPER NUMBER	
			2176		

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

1) Responsive to communication(s) filed on 31 October 2003.  2a) This action is FINAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-16,22,24, and 26-29 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) 1-16,22,24 and 26-29 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) is/are objected to restriction and/or election requirement.		Application No.	Applicant(s)	
Michael K. Botts 2176  — The MAILING DATE of this communication appears on the cover sheet with the correspondence address — Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  If NO period for reply is appointed above, the maintenance of SCRF 1.19(a), in no event, however, may a reply be limitly filled and set 30 kg MONTHS from the maintenance of SCRF 1.19(a), in no event, however, may a reply be limitly filled and set 30 kg MONTHS from the maintenance of SCRF 1.19(a), in no event, however, may a reply be limitly filled and set 30 kg MONTHS from the maintenance of SCRF 1.19(a), in no event, however, may a reply be limitly filled and set 30 kg MONTHS from the maintenance of the communication, even if timety filled, may reduce a ray seamed patent term adjustment. See 37 CFR 1.704(b).  Status  1) ☑ Responsive to communication(s) filled on 31 October 2003  2a) ☑ This action is FINAL.  2b) ☑ This action is FINAL  2b) ☑ This action is non-final.  3) ☑ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) ☑ Claim(s) 1-16.22.24, and 26-29 is/are pending in the application.  4a) Of the above claim(s) is/are allowed.  5) ☑ Claim(s) is/are objected to by the Examiner.  6) ☑ Claim(s) is/are objected to by the Examiner.  10) ☑ The drawing(s) filled on 31 October 2003 is/are: ali ☑ accepted or b) ☐ objected to by the Examiner.  Application Papers  9) ☑ The specification is objected to by the Examiner.  10) ☑ The drawing(s) filled on 31 October 2003 is/are: ali ☑ accepted or b) ☐ objected to by the Examiner.  Application Papers  9) ☑ The Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☑ All bi ☑ Some *Ol ☐ None of  1 ☐ Certified copies of the priority documents have been received in App		10/697,983	TANIOKA, HIROSHI	
- The MAILING DATE of this communication appears on the cover sheet with the correspondence address — Period for Repty Period for Repty A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  Estension of time may be a suitable under the provision of 3 CFR 1.13(8), in no event, nower, may a reply be therefy filled state (3X,0) MONTHS time the integration of 3 CFR 1.13(8), in no event, nower, may a reply be therefy filled state (3X,0) MONTHS time the replace of the communication of the communi	Office Action Summary	Examiner	Art Unit	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Interest IX (8) MONTHS from the realising date of this communication. 1 July 1 July 1 Live in the process of the communication of the process of the		Michael K. Botts	2176	
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Eatherway or the marry to sentimental and the process of th		ppears on the cover sheet w	ith the correspondence address -	-
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  Extensions of the may be waited used the provision of 37 CF1 13/60, in no event, however, may a reply be timely filed after SIX (8) MONTHS from the mailing date of this communication.  Failurs to reply which the set or cheese period for rejywill, by statin, cause the application become ABANDONED 30 u.S. 2; 133). Any reply received by the Office later than these months after the mailing date of this communication, even if simely filed, may reduce any seared patter to term adjustment. Sea 7 CFR 1.70(b):  Status  1) □ Responsive to communication(s) filed on 31 October 2003.  2a) □ This action is FINAL.  2b) □ This action is finAL.  2b) □ This action is non-final.  3) □ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) □ Claim(s) 1-16.22.24 and 26-29 Is/are pending in the application.  4) □ Of the above claim(s)	• •			
1) ⊠ Responsive to communication(s) filed on 31 October 2003.  2a) □ This action is FINAL. 2b) ⊠ This action is non-final.  3) □ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) ♡ Claim(s) 1-16,22,24 and 26-29 is/are pending in the application.  4) ○ Of the above claim(s) is/are withdrawn from consideration.  5) □ Claim(s) is/are allowed.  6) ☒ Claim(s) 1-16,22,24 and 26-29 is/are rejected.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) □ The specification is objected to by the Examiner.  10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) □ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. Sea 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. Sea 37 CFR 1.121(d).  11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☒ All b) □ Some * c) □ None of:  1. □ Certified copies of the priority documents have been received in Application No. 09/433.558.  3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☒ Notice of References Cited (PTO-892)  2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  6) ○ Other: Other: Other : Other : Other : Other : Other :	<ul> <li>WHICHEVER IS LONGER, FROM THE MAILING</li> <li>Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If NO period for reply is specified above, the maximum statutory perio</li> <li>Failure to reply within the set or extended period for reply will, by statu. Any reply received by the Office later than three months after the mail</li> </ul>	DATE OF THIS COMMUNI 1.136(a). In no event, however, may a nd will apply and will expire SIX (6) MO ute, cause the application to become A	CATION. reply be timely filed  NTHS from the mailing date of this communica BANDONED (35 U.S.C. § 133).	
2a) ☐ This action is FINAL. 2b) ☑ This action is non-final.  3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) ☑ Claim(s) 1-16,22,24 and 26-29 is/are pending in the application.  4a) Of the above claim(s)	Status			
2a) ☐ This action is FINAL. 2b) ☑ This action is non-final.  3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) ☑ Claim(s) 1-16,22,24 and 26-29 is/are pending in the application.  4a) Of the above claim(s)	1) ♥ Responsive to communication(s) filed on 31	October 2003		
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-16.22.24, and 26-29 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-16.22.24 and 26-29 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) 1-16.22.24 and 26-29 is/are rejected. 7) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner. 10) The drawing(s) filed on 31 October 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 09/433.558. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.  Attachment(e) 1) Notice of References Cited (PTO-892) 2) Notice of Informal Patent Application (PTO-152) 5) Notice of Informal Patent Application (PTO-152) 6) Other:	<u> </u>			
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)	,		ters, prosecution as to the merits	s is
A) Claim(s) 1-16.22.24, and 26-29 is/are pending in the application.  4a) Of the above claim(s)	, =			
4) ⊠ Claim(s) 1-16.22.24, and 26-29 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) □ Claim(s) is/are allowed.  6) ☒ Claim(s) is/are objected to.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) □ The specification is objected to by the Examiner.  10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) □ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☒ All b) □ Some * c) □ None of.  1. □ Certified copies of the priority documents have been received.  2. ☒ Certified copies of the priority documents have been received in Application No. 09/433.558.  3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☒ Notice of References Cited (PTO-892)  3) ☒ Notice of Traftsperson's Patent Drawing Review (PTO-948)  3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.	ciocca in accordance with the practice and c	an parte quayre, rese on		
4a) Of the above claim(s) is/are withdrawn from consideration.  5) □ Claim(s) is/are allowed.  6) ☒ Claim(s) is/are objected to.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) □ The specification is objected to by the Examiner.  10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) □ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☒ All b) □ Some * c) □ None of:  1. □ Certified copies of the priority documents have been received.  2. ☒ Certified copies of the priority documents have been received in Application No. 09/433.558.  3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/21/03.	Disposition of Claims			
5) ☐ Claim(s) is/are allowed. 6) ☒ Claim(s) is/are objected to. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) ☐ The specification is objected to by the Examiner. 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☒ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☒ Certified copies of the priority documents have been received in Application No. 09/433.558. 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☒ Notice of References Cited (PTO-892) 1) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Claim(s) 1-16,22,24, and 26-29 is/are pendir	ng in the application.		•
6)   Claim(s)	4a) Of the above claim(s) is/are withdr	rawn from consideration.		
7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner.  10)  The drawing(s) filed on 31 October 2003 is/are: a)  accepted or b)  objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No. 09/433.558.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  6) Other:	5) Claim(s) is/are allowed.			
Application Papers  9) ☐ The specification is objected to by the Examiner.  10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☒ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received.  2. ☒ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☒ Notice of References Cited (PTO-892)  □ Notice of Preferences Cited (PTO-948)  3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  6) ☐ Other:  Notice of Informal Patent Application (PTO-152)  6) ☐ Other:	6) Claim(s) 1-16,22,24 and 26-29 is/are rejected	d.		
Application Papers  9) ☐ The specification is objected to by the Examiner.  10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☒ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received.  2. ☒ Certified copies of the priority documents have been received in Application No. 09/433.558.  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☒ Notice of References Cited (PTO-892)  □ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.	7) Claim(s) is/are objected to.			
9) ☐ The specification is objected to by the Examiner.  10) ☑ The drawing(s) filed on 31 October 2003 is/are: a) ☑ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☑ All b) ☐ Some * c) ☐ None of:  1 ☐ Certified copies of the priority documents have been received.  2 ☑ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☑ Notice of References Cited (PTO-892)  ☐ Notice of References Cited (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  1 Interview Summary (PTO-413)  Paper No(s)/Mail Date 10/31/03.  5) ☐ Notice of Informal Patent Application (PTO-152)  6) ☐ Other:	8) Claim(s) are subject to restriction and	/or election requirement.		
10) ☐ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some * c) ☐ None of:  1 ☐ Certified copies of the priority documents have been received.  2 ☐ Certified copies of the priority documents have been received in Application No. 09/433,558.  3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☐ Notice of Praftsperson's Patent Drawing Review (PTO-948)  3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  10 Other: ☐ O	Application Papers			
10) ☐ The drawing(s) filed on 31 October 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☐ All b) ☐ Some * c) ☐ None of:  1 ☐ Certified copies of the priority documents have been received.  2 ☐ Certified copies of the priority documents have been received in Application No. 09/433,558.  3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☐ Notice of Praftsperson's Patent Drawing Review (PTO-948)  3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  10 Other: ☐ O	9) The specification is objected to by the Examin	ner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No. 09/433.558.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  6) Other:	·— · · · · · · · · · · · · · · · · · ·		objected to by the Examiner.	
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some col None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No. 09/433.558.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  6) Other:	•			
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☑ All b) ☐ Some * c) ☐ None of:  1 ☐ Certified copies of the priority documents have been received.  2 ☑ Certified copies of the priority documents have been received in Application No. 09/433,558.  3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☑ Notice of References Cited (PTO-892)  2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  110 ☐ Other: ☐ Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  120 ☐ Other: ☐ Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  131 ☐ Other: ☐ Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  142 ☐ Other: ☐ Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  153 ☐ Other: ☐ Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  164 ☐ Other: ☐ Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	• • • • • • • • • • • • • • • • • • • •			21(d).
Priority under 35 U.S.C. § 119  12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) □ All b) □ Some * c) □ None of:  1. □ Certified copies of the priority documents have been received.  2. □ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) □ Notice of References Cited (PTO-892)  2) □ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) □ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  10 Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  11 □ Interview Summary (PTO-413) Paper No(s)/Mail Date 10/31/03.  12 □ Notice of Informal Patent Application (PTO-152)  13 □ Other: □ □ Other: □ □ Other: □ □ □ Other: □ Other: □ □ Other: □ □ Other: □ Other	· -			
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) □ All b) □ Some * c) □ None of:  1. □ Certified copies of the priority documents have been received.  2. □ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) □ Notice of References Cited (PTO-892)  2) □ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) □ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.	,—			
a) ⊠ All b) □ Some * c) □ None of:  1. □ Certified copies of the priority documents have been received.  2. ☑ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☑ Notice of References Cited (PTO-892)  2) □ Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  6) □ Other: □ □	•			
1. ☐ Certified copies of the priority documents have been received.  2. ☐ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☐ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  1. ☐ Certified copies of the priority documents have been received in Application No. 09/433,558.  4. ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. ☐ .  5. ☐ Notice of Informal Patent Application (PTO-152) 6. ☐ Other: ☐ .		gn priority under 35 U.S.C.	§ 119(a)-(d) or (f).	
2. ☐ Certified copies of the priority documents have been received in Application No. 09/433,558.  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☐ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  10 ☐ Other:  11 ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date 12 ☐ Notice of Informal Patent Application (PTO-152) 13 ☐ Other:	,	•		
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  10 ☐ Other:				
application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Notice of Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  4) Interview Summary (PTO-413)  Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152)  6) Other:	•			
* See the attached detailed Office action for a list of the certified copies not received.  Attachment(s)  1)  Notice of References Cited (PTO-892)  2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  * Notice of Informal Patent Application (PTO-152) Other:	•		n received in this National Stage	
Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03.  4) Interview Summary (PTO-413) Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152) 6) Other:	• •	* * * * * * * * * * * * * * * * * * * *		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03. 4) Interview Summary (PTO-413) Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152) 6) Other:	* See the attached detailed Office action for a lie	st of the certified copies no	t received.	
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03. 4) Interview Summary (PTO-413) Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152) 6) Other:				
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/31/03. 4) Interview Summary (PTO-413) Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152) 6) Other:	Attachmont(a)			
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152) Paper No(s)/Mail Date	<u> </u>	4) Interview	Summary (PTO-413)	
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 10/31/03.  5) Notice of Informal Patent Application (PTO-152)  6) Other:		Paper No	(s)/Mail Date	
t apolitic(a), mail auto <u>relativo</u> .	3) X Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0	· ~	Informal Patent Application (PTO-152)	
		o) [_] Other	·	-

Art Unit: 2176

4 a m

#### **DETAILED ACTION**

- 1. This document is the first Office Action on the merits. This action is responsive to the following communications: The Continuation Non-Provisional Application, which was filed on October 31, 2003, and which was a continuation of Application 09/433,558, and which claim priority under 35 U.S.C. § 119, upon Japanese Priority Applications Japan 10-314635, which was filed November 5, 1998, and Japan 11-312624, which was filed November 2, 1999. Acknowledgement is made of receipt of certified copies of the Japanese Priority Applications, which were filed with the U.S. parent application, 09/443,558, however, no English language translations of the Japanese Priority Applications are found in the Patent Office files.
- 2. The claims were amended by a Preliminary Amendment, which was filed October 31, 2003, and which amended claims 1, 8, 10, 22, and 24; cancelled claims 17-21, 23, and 25; and, added claims 26-29.
- 3. Claims 1-16, 22, 24, and 26-29 have been examined, with claims 1, 8, 9, 10, 22, and 24 being the independent claims.
- 4. Claims 1-16, 22, 24, and 26-29 are rejected.

#### Information Disclosure Statement

5. An initialed and dated copy of applicant's IDS form 1449, which was filed on October 31, 2003, is attached to this Office Action.

Art Unit: 2176

### **Priority**

6. It is noted that translations of the claimed priority documents have not been filed. In the interest of compact prosecution, this application is examined and this Office Action is filed under the assumption that the claims are fully supported by the priority document, however, that assumption is conditioned on the receipt and review of the English language translations of the priority documents.

## Claims Rejection - 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 7. Claims 1, 2, 8, 9, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi, et al. (Japanese Laid-Open Patent Publication (Kokai) No. A8-30717, published February 2, 1996) [hereinafter "Matsubayashi"], in view of Gray, et al. (U.S. Patent 3,295,105, published December 27, 1966) [hereinafter "Gray"].

Regarding independent claim 1, Matsubayashi in view of Gray teaches:

An image processing apparatus comprising:

a reading means for reading an image in an original;

(See, Matsubayashi, paragraphs [0008]-[0009], teaching an image reading means.)

Art Unit: 2176

a character recognizing means for recognizing a character in the image read by said reading means;

(See, Matsubayashi, paragraphs [0008]-[0010], teaching a character recognition means.)

a storing means for storing a character font;

(See, Matsubayashi, Figure 1, element 4, and paragraph 13, teaching an image storage part.)

a readout means for reading the character font from said storing means in response to a result of recognition obtained by said character recognizing means;

(See, Matsubayashi, paragraphs [0014], teaching a readout means.)

a detecting means for detecting information concerning the character in the image read by said reading means; and

(See, Matsubayashi, paragraphs [0014], teaching detecting character information.)

a generating means for generating a reproduced image based on the character font read by said readout means and the information concerning the character detected by said detecting means,

(See, Matsubayashi, paragraphs [0014], teaching generating a reproduced image based on the character font read by the readout means and the information concerning the character detected by the detecting means.)

wherein said generating means reproduces a character with a character gap according to a set condition by an instruction from an operator, and

said generating means reproduces characters by combining a plurality of kinds of character gaps in accordance with the set condition.

(Matsubayashi teaches the limitations discussed above, but does not expressly teach a generating means to reproduce a character with a character gap according to a set condition by an instruction from an operator, with the characters reproduced by combining a plurality of kinds of character gaps in accordance with the set position.

Gray, teaches in detail the recording of gaps or spaces between scanned characters. See, Gray, col. 6, line 19 through col. 8, line 24, teaching scanning characters to determine space relationships. Gray does not expressly teach generating a reproduction of the characters and gaps from the scan. The Examiner takes official notice of the fact that it would have been obvious to one of ordinary skill in the art at the time of the invention that one of the principal uses for scanning a text document is to enable later reproduction such as to be copied into another document, edited, or printed through an attached printing device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsubayashi and Gray to result in the invention claimed. Both Matsubayashi and Gray involve the same art, document scanning and character recognition. Matsubayashi teaches the recognition of the character in terms of a Japanese characters to which spacing is less functional. Gray teaches the recognition of the character in a different manner than Matsubayashi, and additionally teaches the recognition of the spaces in alpha-numeric characters. The character recognition function of Gray operates separately from the space recognition teachings.

Art Unit: 2176

It would have been obvious to one of ordinary skill in the art at the time of the invention who desired to use the character recognition method of Matsubayashi with an alphanumeric character set to add the Gray space recognition teachings to the Matsubayashi recognition method for purposes of using Matsubayashi with an alphanumeric text.

Regarding dependent claim 2, Matsubayashi in view of Gray teaches:

An image processing apparatus according to claim 1, wherein a character font used for a reproduced image is determined to have a character style which is closest to the character in the original.

(See, Matsubayashi, paragraphs [0013]-[0014] and [0031]-[0033], teaching that the character font used for a reproduced image is determined to have a character style which is closest to the character in the original.)

Regarding independent claim 8, Matsubayashi in view of Gray teaches:

An image processing method comprising the steps of:

detecting information concerning a character in an image in an original;

recognizing a character in the image;

reading a character font from a storing means in response to a result of character recognition; and

generating a reproduced image based on the read character font and the information concerning the character,

Art Unit: 2176

wherein said generating means reproduces a character with a character gap according to a set condition by an instruction from an operator, and said generating means reproduces characters by combining a plurality of kinds of character gaps in accordance with the set condition.

(Claim 8 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.)

Regarding independent claim 9, Matsubayashi in view of Gray teaches:

A recording medium readable by a computer characterized by storing a program therein, said program using the computer to execute the processing comprising the steps of: detecting information concerning a character in an image in an original;

recognizing a character in the image;

reading a character font from a storing means in response to a result of character recognition; and

generating a reproduced image based on the read character font and the information concerning the character,

wherein said generating means reproduces a character with a character gap according to a set condition by an instruction from an operator, and

said generating means reproduces characters by combining a plurality of kinds of character gaps in accordance with the set condition.

Art Unit: 2176

(Claim 9 incorporates substantially similar subject matter as claimed in claim 1 and, in further view of the following, is rejected along the same rationale. The Examiner takes official notice of the fact that method steps that are performed by a computer are stored in a program and used from the storage device to execute the program on the computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the method steps claimed for purposes of archiving, sale, transportation, or later execution on the computer.)

Regarding dependent claim 27, Matsubayashi in view of Gray teaches:

A method according to Claim 8, wherein said method enables to output the reproduced image in an image processing apparatus which can transmit data to an external apparatus through at least any of a plurality of data transmission media including a personal computer interface and a network.

(Matsubayashi and Gray teach the invention of claim 8, above, but the transmission of the data. The Examiner takes official notice of the fact that it was well known to one of ordinary skill in the art at the time of the invention to transmit data on any of a plurality of data transmission media, including a personal computer interface and a network, such as in an intranet, internet, the Internet, or a peer-to-peer network, or just copying the data to a disk or other memory device for purposes of data transmission, storage, collaboration, etc.)

Art Unit: 2176

8. Claims 3, 5, 6, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi, et al. (Japanese Laid-Open Patent Publication (Kokai) No. A8-30717, published February 2, 1996) [hereinafter "Matsubayashi"], in view of Gray, et al. (U.S. Patent 3,295,105, published December 27, 1966) [hereinafter "Gray"] as applied to claim 1 above, and further in view of Shibuya, et al. (U.S. Patent 5,579,416, issued November 26, 1996) [hereinafter "Shibuya"].

Regarding **dependent claim 3**, Matsubayashi in view of Gray and further in view of Shibuya teaches:

An image processing apparatus according to claim 1, wherein a character used for a reproduced image has at least two different sizes with respect to the same character size on the original.

(Matsubayashi and Gray each the invention of claim 1, above, but do not expressly teach that a character used for a reproduced image as at least two different sizes with respect to the same character size on the original.

Shibuya teaches at least two different sizes with respect to the same character size to an original character size. See, Shibuya, Figures 9H-9M, teaching changing sizes by magnification in both the "x" and "y" directions. See also, Shibuya, col. 3, lines 25-26, teaching an arbitrary character size.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Shibuya for the

Art Unit: 2176

purpose of increasing the flexibility and enhancing the appearance of a reproduction by

having at least two different sizes for a character.)

Regarding dependent claim 5, Matsubayashi in view of Gray and further in view of

Shibuya teaches:

An image processing apparatus according to claim 1, wherein said generating means reproduces a character having a size according to information detected by said detecting means and a set copy magnification.

(Matsubayashi and Gray teach the invention of claim 1, above, but do not expressly teach reproducing a character having a size according to information detected by the detecting means and a set copy magnification.

Shibuya teaches at least two different sizes with respect to the same character size to an original character size. See, Shibuya, Figures 9H-9M, teaching changing sizes by magnification.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Shibuya for the purpose of increasing the flexibility and enhancing the appearance of a reproduction by having a magnification function.)

Regarding **dependent claim 6**, Matsubayashi in view of Gray and further in view of Shibuya teaches:

Art Unit: 2176

An image processing apparatus according to claim 5, wherein said generating means reproduces a character with a character gap according to the set copy magnification.

(Matsubayashi and Gray teach the invention of claim 1, above, and Matsubayashi, Gray, and Shibuya teach the invention of claim 5, above, but they do not expressly teach that a character gap according to the set copy magnification.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Shibuya for the purpose of reproducing an image with a magnification function and to also include the function to reproduce a set spacing or gap in order to enhance the appearance of a series of magnified or reduced characters to allow for an appropriate spacing between the then larger or smaller characters.)

Regarding **dependent claim 26**, Matsubayashi in view of Gray and further in view of Shibuya teaches:

A method according to Claim 8, wherein said method enables to output the reproduced image in an image processing apparatus which can form on a sheet an image based on data input from at least any of a plurality of data generation sources including an original reading unit and an external apparatus.

(Matsubayashi and Gray teach the invention of claim 8, above, but they do not expressly teach forming on a sheet an image based on data from any of a plurality of data generation sources including an original reading unit and an external apparatus.

Art Unit: 2176

Shibuya teaches printing the image. See, Shibuya, Figure 1A, element 11.

Printing of data, and the scanning of images in order to later print the data, in whole or in part, was well known to one of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsubayashi and Gray with the teaching of Shibuya to print the stored data for purposes of preparing a composite image or for duplicating the original document.)

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi in view of Gray as applied to claim 1 above, and further in view of Hashizume, et al. (U.S. Patent 5,513,278, issued April 30, 1996) [hereinafter "Hashizume"].

Regarding **dependent claim 4**, Matsubayashi in view of Gray and further in view of Hashizume teaches:

An image processing apparatus according to claim 1, wherein a character size used for a reproduced image is determined as a maximum size by which all characters in the original can be reproduced as reproduced images.

(Matsubayashi and Gray each the invention of claim 1, above, but do not expressly teach that a character size used for a reproduced image is determined as a maximum size by which all characters in the original can be reproduced as reproduced images.

Art Unit: 2176

Hashizume teaches as prior art that it is conventional to apply a single size to every character reproduced. See, Hashizume, col. 2, lines 9-12. The single size applied would be the maximum size in that it is the only size applied.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Hashizume for the purpose of establishing a maximum size for a reproduced image due to the fact that Hashizume teachings are well known conventional and because such combination would provide the obvious advantage of an image with characters of a consistent size.)

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi in view of Gray and further in view of Shibuya as applied to claim 6 above, and further in view of Saito, et al. (U.S. Patent 4,962,465, issued October 9, 1990) [hereinafter "Saito"].

Regarding **dependent claim 7**, Matsubayashi in view of Gray in view of Shibuya and further in view of Saito, teaches:

An image processing apparatus according to claim 6, wherein said generating means reproduces characters by combining a plurality of kinds of character gaps when a number of pixels of a character gap calculated in accordance with the set copy magnification is not an integer.

(Matsubayashi Gray, and Shibuya teach the invention of claim 6, above, but they do not expressly teach that the number of pixels of a character gap is not an integer.

Art Unit: 2176

Saito, Figures 13, 14, and 16, teach a magnified character pattern in which the character and the gap around the character is not necessarily an integer value, the character being set in a 72x72 dot field and the character being set at a fraction of the dot spacing. See also, Saito, col. 2, lines 57-62, teaching shifting a magnified image ½ of the numbers of dots added both longitudinally and transversely, which would inherently include a shift of a fraction of dots (not an integer) if the longitudinally or transversely shift was an odd number. It would have been obvious to one of ordinary skill in the art at the time of the invention that the teaching to shift the character to a non-integer number of pixels would include the ability to adjust the gap between a character to a non-integer number.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, Shibuya, and Saito for the purpose of increasing the flexibility and enhancing the appearance of a reproduction by having a magnification function that would permit a finer control of the character and gap size by fractional shifting of the size of the character resulting in fractional sizing of the gaps between the characters.)

11. Claims 10, 12-15, 22, 24, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi, et al. (Japanese Laid-Open Patent Publication (Kokai) No. A8-30717, published February 2, 1996) [hereinafter "Matsubayashi"], in view of Gray, et al. (U.S. Patent 3,295,105, published December 27, 1966) [hereinafter

Art Unit: 2176

"Gray"] and further in view of Isaka (U.S. Patent 5,946,001, filed June 7, 1995) [hereinafter "Isaka"].

Regarding independent claim 10, Matsubayashi in view of Gray and further in view of Isaka teaches:

An image processing apparatus comprising:

a reading means for reading an image in an original;

(See, Matsubayashi, paragraphs [0008]-[0009], teaching an image reading means.)

a recognizing means for recognizing a character in the image read by said reading means at a first resolution; and

(See, Matsubayashi, paragraphs [0008]-[0010], teaching a character recognition means. It is noted that a first resolution is inherent.)

a generating means for generating, at a second resolution lower than the first resolution of the recognition performed by said recognizing means, reproduced data of a font based on a recognition result of said recognizing means.

(See, Matsubayashi, paragraph [0014], teaching a generating means for generating reproduced data of a font based on a recognition result.

Matsubayashi and Gray do not expressly teach a second resolution lower than the first resolution of the reproduced data.

Isaka teaches setting an output resolution for generated fonts. See, Isaka, col. 1, line 37. It is clear from Isaka's disclosure that the resolution can be arbitrarily set,

**Art Unit: 2176** 

according to the user's needs, and therefore the second resolution could be lower than the first resolution.

It would have been obvious to one of ordinary skill in the art to modify the combined teachings of Matsubayashi and Gray with the teachings of Isaka because it would allow improved flexibility to the reproduction of the data, providing the ability to generate fonts of a variety of resolutions with the advantage of varied visual appearances, or increased speed of draft or final printing.)

Regarding **dependent claim 12**, Matsubayashi in view of Gray and further in view of Isaka teaches:

An image processing apparatus according to claim 10, wherein said first resolution for an image area other than a character recognized by said recognizing means is converted into said second resolution.

(It is noted that the invention of Isaka does not rely specifically on character recognition results, but can change the resolution of any font as desired, whether the font is recognized or not. See, Isaka, col. 1, line 37. Therefore, the first resolution of an image area other than a character recognized by the recognizing means can be converted into said second resolution.)

Regarding **dependent claim 13**, Matsubayashi in view of Gray and further in view of Isaka teaches:

Page 17

Art Unit: 2176

Application/Control Number: 10/697,983

An image processing apparatus according to claim 10 further comprising an outputting means for outputting a reproduced image generated by said generating means to an external apparatus.

(See, Matsubayashi, paragraph [0014], teaching an outputting means to a display.)

Regarding **dependent claim 14**, Matsubayashi in view of Gray and further in view of Isaka teaches:

An image processing apparatus according to claim 10, wherein said generating means selects a different font in accordance with a value of said second resolution.

(See, Isaka, col. 2, lines 24-25, teaching a generating means selecting a different fond in accordance with a value of the second resolution. A variety of fonts being stored for use.)

Regarding **dependent claim 15**, Matsubayashi in view of Gray and further in view of Isaka teaches:

An image processing apparatus according to claim 10, wherein a font replaced by said generating means includes a rough character font.

(Matsubayashi, Gray, and Isaka do not expressly teach a "rough character font." It is noted that the disclosure identifies a "rough character font" as follows: "If a resolution during transmission is low and a size of recognized characters is small, the font expansion by which a number of dots becomes smaller than that of an usual font must

Art Unit: 2176

be carried out. In this case, the size is unchanged but the characters become unclear due to the pixel skipping processing." The Examiner takes official notice of the fact that unclear characters due to low transmission resolution were well known to one of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art to include a rough character font in the combined inventions of Matsubayashi, Gray, and Isaka because it would provide a more accurate rendition of the image of the rougher looking characters as in the original document.)

Regarding **independent claim 22**, Matsubayashi in view of Gray and further in view of Isaka teaches:

An image processing method comprising the steps of:

recognizing a character in an image in an original at a first resolution; and
generating, at a second resolution lower than the first resolution of the
recognition performed by said recognizing step, reproduced data of a font based
on a recognition result of said recognizing step.

(Claim 22 incorporates substantially similar subject matter as claimed in claim 10 and is rejected along the same rationale.)

Regarding **independent claim 24**, Matsubayashi in view of Gray and further in view of Isaka teaches:

Art Unit: 2176

A recording medium readable by a computer characterized by storing a program therein, said program using the computer to execute the processing comprising the steps of:

recognizing a character in an image in an original at a first resolution; and generating, at a second resolution lower than the first resolution of the recognition performed by said recognizing step, reproduced data of a font based on a recognition result of said recognizing step.

(Claim 24 incorporates substantially similar subject matter as claimed in claim 10 and in further view of the following, is rejected along the same rationale. The Examiner takes official notice of the fact that method steps that are performed by a computer are stored in a program and used from the storage device to execute the program on the computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the method steps claimed for purposes of archiving, sale, transportation, or later execution on the computer.)

Regarding **dependent claim 28**, Matsubayashi in view of Gray and further in view of Isaka teaches:

A method according to Claim 22, wherein said method enables to output the reproduced image in an image processing apparatus which can form on a sheet an image based on data input from at least any of a plurality of data generation sources including an original reading unit and an external apparatus.

- - -

Art Unit: 2176

(Matsubayashi, Gray, and Isaka teach the invention of claim 22, above, but they do not expressly teach forming on a sheet an image based on data from any of a plurality of data generation sources including an original reading unit and an external apparatus.

Isaka teaches printing the image. See, Isaka, Figure 1, element 7.

Printing of data, and the scanning of images in order to later print the data, in whole or in part, was well known to one of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsubayashi and Gray with the teaching of Isaka to print the stored data for purposes of preparing a composite image or for duplicating the original document.)

Regarding **dependent claim 29**, Matsubayashi in view of Gray and further in view of Isaka teaches:

A method according to Claim 22, wherein said method enables to output the reproduced image in an image processing apparatus which can transmit data to an external apparatus through at least any of a plurality of data transmission media including a personal computer interface and a network.

(Matsubayashi, Gray, and Isaka teach the invention of claim 22, above, but the transmission of the data. The Examiner takes official notice of the fact that it was well known to one of ordinary skill in the art at the time of the invention to transmit data on any of a plurality of data transmission media, including a personal computer interface and a network, such as in an intranet, internet, the Internet, or a peer-to-peer network,

Art Unit: 2176

or just copying the data to a disk or other memory device for purposes of data

transmission, storage, collaboration, etc.)

12. Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubayashi in view of Gray as applied to claim 10 above, further in view of Hashizume, et al. (U.S. Patent 5,513,278, issued April 30, 1996) [hereinafter "Hashizume"] and further in view of Isaka (U.S. Patent 5,946,001, filed June 7, 1995)

[hereinafter "Isaka"].

Regarding **dependent claim 11**, Matsubayashi in view of Gray in view of Hashizume teaches:

An image processing apparatus according to claim 10, wherein a size of said font generated by said generating means is substantially equal to a size of the character in the image in said original.

(Matsubayashi and Gray do not expressly teach that a size of a font generated by a generating means is substantially equal to a size of the character in the image in the original, however, this was well known to one of ordinary skill in the art at the time of the invention as taught by Hashizume.

Hashizume teaches as prior art that it is conventional to apply a single size to every character reproduced. See, Hashizume, col. 2, lines 9-12. The single size applied would be known to be the original size of the character image.

Art Unit: 2176

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Hashizume for the purpose of reproducing the original size for a reproduced image due to the fact that Hashizume teachings are well known conventional and because such combination would provide the obvious advantage of accurately reproducing an image with characters of the original size for purposes of copying or accurately duplicating the original document.)

Regarding **dependent claim 16**, Matsubayashi in view of Gray in view of Hashizume and further in view of Isaka teaches:

An image processing apparatus according to claim 10, wherein said generating means selects a different font in accordance with a size of the character in the image recognized by said recognizing means.

(Matsubayashi and Gray do not expressly teach that a size of a font generated by a generating means is substantially equal to a size of the character in the image in the original, but of a different font.

Hashizume teaches as prior art that it is conventional to apply a single size to every character reproduced. See, Hashizume, col. 2, lines 9-12. The single size applied would be known to be the original size of the character image.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Matsubayashi, Gray, and Hashizume for the purpose of reproducing the original size for a reproduced image due to the fact that

Art Unit: 2176

Hashizume teachings are well known conventional and because such combination would provide the obvious advantage of accurately reproducing an image with characters of the original size for purposes of formatting, and changing the font for purposes of setting off the reproduced text, such as italicized for emphasis as a quote, or for other obvious variances in formatting for esthetics or layout purposes.)

13. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

#### Conclusion

14. The following prior art is made of record and not relied upon that is considered pertinent to applicants' disclosure:

Kugai (U.S. Patent 6,272,238 B1), teaching character recognition and output.

Smith (U.S. Patent 6,337,924 B1), teaching font matching in a character recognition system.

Medina (U.S. Patent 5,889,897), teaching font recognition in a character recognition system.

Shojima, et al. (U.S. Patent 5,592,565), teaching character recognition.

Higgins, et al. (U.S. Patent 5,53,958), teaching grey-scale pixel values and

Art Unit: 2176

segmentation of characters.

Markham (U.S. Patent 5,150,108), teaching italicizing a font.

Blanton, et al. (U.S. Patent 4,731,861), teaching scanning and character recognition with additional character information.

Benson, et al. (U.S. Patent 4,003,023), teaching an optical scanner with a recognition of a gap.

Sawada, et al. (Japanese Laid-Open Patent Publication (Kokai) No. 02-289066), teaching optical character recognition with referral to a dictionary.

Shiga (Japanese Laid-Open Patent Publication (Kokai) No. Hei 2[1990]-96885), teaching image reading and translation to text codes.

Individuals associated with the filing or prosecution of a patent application are reminded of their obligations pursuant to 37 CRF 1.56. See generally, MPEP 2001 and subsections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday Thru Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Art Unit: 2176

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKB/mkb

DOŬG HUTTON
PRIMARY EXAMINER
TECH CENTER 2100